



# University of Hawaii at Manoa

**Environmental Center**  
Crawford 317 • 2550 Campus Road  
Honolulu, Hawaii 96822  
Telephone (808) 948-7361

Office of the Director

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## SB 1452 RELATING TO DESIGN STANDARDS FOR NATIONAL FLOOD INSURANCE ACT

Statement for  
Senate Committee on  
Ecology, Environment and Recreation  
Public Hearing, 26 February 1979

By  
Doak C. Cox, Environmental Center  
Charles Bretschneider, Ocean Engineering

SB 1452 calls for an appropriation in support of the development of standards for structural design acceptable to the National Flood Insurance Act. This statement on the bill does not reflect an institutional position of the University.

The lack of definitive design standards for structures that may be affected by tsunamis represents an important problem in the application of the provisions of the National Flood Insurance Act in Hawaii. In providing for the development of standards relating protection structures against flooding, the Federal Insurance Administration originally neglected the tsunami component of the need. It is our understanding, however, that the FIA is now providing for an extension of the contractual services under which the structural design standards are being developed so to include standards pertinent to tsunami hazards.

There may be good reason, however, for a State effort in parallel to the Federal effort, to assure that standards appropriate in Hawaii will be developed.

As perceived by the State Water Commission, the major increases in water usage will be municipal. The per capita municipal usage on Oahu was about 200 gallons per day in 1975 but will be about 240 gpd in 2000 if present trends continue. A reduction of about 35 million gallons per day in the year-2000 municipal consumption could be achieved if per capita consumption could be held at the 1975 level. However, the domestic usage amounts to only about 110 gallons per capita per day, the remaining municipal consumption being in commercial, industrial, and public uses, and in systems losses.

According to the State Water Commission, water use reductions of as much as 35 percent in the average household and 50 percent in commercial establishments might be achieved by the use of appliances fixtures now available. Some of the reductions would be achieved by not installing certain kinds of appliances, kitchen disposals and automatic dishwashers for example, rather than by installing devices. Other reductions would be achieved by installing more efficient devices in new homes, more important toilets for example, rather than installing devices on fixtures in existing homes. Furthermore, the household uses are even to the extent the use of the devices qualifying for the credit would achieve a certain devices qualifying for the credit would achieve a certain relative reduction in household use, the relative reduction in total domestic use would be less, because the domestic uses of watering lawns and gardens, filling swimming pools, etc., would continue.

These considerations do not negate the benefit that would result from the tax credit proposed in SB 556. However, they suggest that the magnitude of the benefit in reducing overall demands on the water resources of the State is somewhat in question.